layer by CLV (constant linear velocity) operation, said method being carried out in the following manner:

when an individual recorded mark has a time length nT (T is the data reference clock period, and n is an integer within a range of from 3 to 11),

recording light of erasure power Pe, which is able to crystallize an amorphous-state portion, irradiates inter-mark portions,

for the recorded marks, the time length (n-j)T is divided into $\alpha_1 T$, $\beta_1 T$, $\alpha_2 T$, $\beta_2 T$, ..., $\alpha_m T$, $\beta_m T$ (where m=n-1 or m=n-2) in this sequence so as to satisfy $\Sigma_i(\alpha_i+\beta_i)=n-j$ (j is a real number within a range of $0.0\le j\le 2.0$), and

the recording light of recording power Pw (Pw>Pe), which is able to melt the recording layer within the time length $\alpha_i T$ ($1\le i\le m$), irradiates the recording layer, and the recording light of bias power Pb ($0\le Pb\le 0.5Pe$) within the time length $\beta_i T$ ($1\le i\le m$) the recording layer to overwrite; and

when a linear velocity within a range of 1.2 m/s to 1.4 m/s is the reference velocity (1-times velocity) and 231 nsec (ns) is a reference clock period,

for the 4-times velocity, α_1= from 0.3 to 1.5, α_i= from 0.2 to 0.7 ($2\le i\le m$), $\alpha_i+\beta_{i-1}$= from 1 to 1.5 ($3\le i\le m$),

for the 1- or the 2-times velocity, α_1= from 0.05 to 1.0, α_i= from 0.05 to 0.5 ($2\le i\le m$), $\alpha_i+\beta_{i-1}$= from 1 to 1.5 ($3\le i\le m$), and

for any of 6-, 8-, 10- and 12-times velocities, α_1= from 0.3 to 2, α_i= from 0.3 to 1 ($2\le i\le m$), $\alpha_i+\beta_{i-1}$= from 1 to 1.5 ($3\le i\le m$);

and wherein for any of the described linear velocity in use,

m is constant,